

## Water Division/ Wetlands Bureau

## Land Resources Management

Check the status of your application: <http://des.nh.gov/onestop>



RSA/Rule: Env-Wq 100-900

Indicate your Review Time below. Refer to Guidance Document A for instructions.

☒ Standard Review (Minimum, Minor or Major Impact)☐ Expedited Review (Minimum Impact only)

Separate applications must be filed with each municipality that jurisdictional impacts will occur in.

TOWN/CITY: Jaffrey

UNIT:

STREAM WATERSHED SIZE: 1600 acres

☐ NA☒ Latitude/Longitude ☐ UTM☐ State Plane

Provide a brief description of the project outlining the scope of work. Attach additional sheets as needed to provide a detailed explanation of your project. DO NOT reply "See Attached" in the space provided below.

Replace the existing 60"x42" squashed metal pipe with a 5'x8' plastic arch due to deterioration. The slope of the current structure is inverted; the slope of the new arch will enhance stream connectivity as it will restore a natural gradient to the crossing and eliminate the perched outlet. 2'x2' footings will be installed along the toe of the channel to stabilizing the plastic arch and adjust for the inverted slope.

☐ NA This lot has no shoreline frontage.

SHORELINE FRONTAGE: 35 linear feet

Shoreline frontage is calculated by determining the average of the distances of the actual natural navigable shoreline frontage and a straight line drawn between the property lines, both of which are measured at the normal high water line.

5. RELATED PERMITS, ENFORCEMENT, EMERGENCY AUTHORIZATION, SHORELAND, ALTERATION OF TERRAIN, ETC...

Shoreland PBN 2017-00556

See the Instructions & Required Attachments document for instructions to complete a & b below.

a. Natural Heritage Bureau File ID: NHB 17 - 0102

b. ☐ Designated River the project is in ¼ miles of: \_\_\_\_\_; and  
date a copy of the application was sent to Local River Advisory Committee: Month: \_\_\_\_\_ Day: \_\_\_\_\_ Year: \_\_\_\_\_

☒ NA

shoreland@des.nh.gov or (603) 271-2147

NHDES Wetlands Bureau, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095

[www.des.nh.gov](http://www.des.nh.gov)

**7. APPLICANT INFORMATION (Desired permit holder)**LAST NAME, FIRST NAME, M.I.: **NHDOT District 4 (John Kallfelz)**TRUST / COMPANY NAME: **NHDOT District 4**MAILING ADDRESS: **19 Base Hill Road**TOWN/CITY: **Swansey**STATE: **NH**ZIP CODE: **03446**EMAIL or FAX: **John.Kallfelz@dot.nh.gov**PHONE: **603-352-2302**ELECTRONIC COMMUNICATION: By initialing here: **JK**, I hereby authorize DES to communicate all matters relative to this application electronically**8. PROPERTY OWNER INFORMATION (If different than applicant)**

LAST NAME, FIRST NAME, M.I.:

TRUST / COMPANY NAME:

MAILING ADDRESS:

TOWN/CITY:

STATE:

ZIP CODE:

EMAIL or FAX:

PHONE:

ELECTRONIC COMMUNICATION: By initialing here \_\_\_\_\_, I hereby authorize DES to communicate all matters relative to this application electronically

**9. AUTHORIZED AGENT INFORMATION**

LAST NAME, FIRST NAME, M.I.:

COMPANY NAME:

MAILING ADDRESS:

TOWN/CITY:

STATE:

ZIP CODE:

EMAIL or FAX:

PHONE:

ELECTRONIC COMMUNICATION: By initialing here \_\_\_\_\_, I hereby authorize DES to communicate all matters relative to this application electronically

**10. PROPERTY OWNER SIGNATURE:**

See the Instructions &amp; Required Attachments document for clarification of the below statements

By signing the application, I am certifying that:

1. I authorize the applicant and/or agent indicated on this form to act in my behalf in the processing of this application, and to furnish upon request, supplemental information in support of this permit application.
2. I have reviewed and submitted information & attachments outlined in the Instructions and Required Attachment document.
3. All abutters have been identified in accordance with RSA 482-A:3, I and Env-Wt 100-900.
4. I have read and provided the required information outlined in Env-Wt 302.04 for the applicable project type.
5. I have read and understand Env-Wt 302.03 and have chosen the least impacting alternative.
6. Any structure that I am proposing to repair/replace was either previously permitted by the Wetlands Bureau or would be considered grandfathered per Env-Wt 101.47.
7. I have submitted a Request for Project Review (RPR) Form ([www.nh.gov/nhdhr/review](http://www.nh.gov/nhdhr/review)) to the NH State Historic Preservation Officer (SHPO) at the NH Division of Historical Resources to be reviewed for the presence of historical/ archeological resources.
8. I authorize DES and the municipal conservation commission to inspect the site of the proposed project.
9. I have reviewed the information being submitted and that to the best of my knowledge the information is true and accurate.
10. I understand that the willful submission of falsified or misrepresented information to the New Hampshire Department of Environmental Services is a criminal act, which may result in legal action.
11. I am aware that the work I am proposing may require additional state, local or federal permits which I am responsible for obtaining.
12. The mailing addresses I have provided are up to date and appropriate for receipt of DES correspondence. DES will not forward returned mail.

Property Owner Signature

Print name legibly

Date

[shoreland@des.nh.gov](mailto:shoreland@des.nh.gov) or (603) 271-2147

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## MUNICIPAL SIGNATURES

### 11. CONSERVATION COMMISSION SIGNATURE

The signature below certifies that the municipal conservation commission has reviewed this application, and:

1. Waives its right to intervene per RSA 482-A:11;
2. Believes that the application and submitted plans accurately represent the proposed project; and
3. Has no objection to permitting the proposed work.


	Print name legibly	Date
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#### DIRECTIONS FOR CONSERVATION COMMISSION

1. Expedited review ONLY requires that the conservation commission's signature is obtained in the space above.
2. Expedited review requires the Conservation Commission signature be obtained prior to the submittal of the original application to the Town/City Clerk for signature.
3. The Conservation Commission may refuse to sign. If the Conservation Commission does not sign this statement for any reason, the application is not eligible for expedited review and the application will reviewed in the standard review time frame.

### 12. TOWN / CITY CLERK SIGNATURE

As required by Chapter 482-A:3 (amended 2014), I hereby certify that the applicant has filed four application forms, four detailed plans, and four USGS location maps with the town/city indicated below.

	Print name legibly	Town/City	Date
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#### DIRECTIONS FOR TOWN/CITY CLERK:

Per RSA 482-A:3.I

1. For applications where "Expedited Review" is checked on page 1, if the Conservation Commission signature is not present, NHDES will accept the permit application, but it will NOT receive the expedited review time.
2. IMMEDIATELY sign the original application form and four copies in the signature space provided above;
3. Return the signed original application form and attachments to the applicant so that the applicant may submit the application form and attachments to NHDES by mail or hand delivery.
4. IMMEDIATELY distribute a copy of the application with one complete set of attachments to each of the following bodies: the municipal Conservation Commission, the local governing body (Board of Selectmen or Town/City Council), and the Planning Board; and
5. Retain one copy of the application form and one complete set of attachments and make them reasonably accessible for public review.

#### DIRECTIONS FOR APPLICANT:

1. Submit the original permit application form bearing the signature of the Town/ City Clerk, additional materials, and the application fee to NHDES by mail or hand delivery.

**13. IMPACT AREA:**

For each jurisdictional area that will be/has been impacted, provide square feet and, if applicable, linear feet of impact

Permanent: impacts that will remain after the project is complete.Temporary: impacts not intended to remain (and will be restored to pre-construction conditions) after the project is complete.

JURISDICTIONAL AREA	PERMANENT Sq. Ft. / Lin. Ft.		TEMPORARY Sq. Ft. / Lin. Ft.	
Forested wetland		<input type="checkbox"/> ATF		<input type="checkbox"/> ATF
Scrub-shrub wetland	0	<input type="checkbox"/> ATF	140	<input type="checkbox"/> ATF
Emergent wetland		<input type="checkbox"/> ATF		<input type="checkbox"/> ATF
Wet meadow		<input type="checkbox"/> ATF		<input type="checkbox"/> ATF
Intermittent stream		<input type="checkbox"/> ATF		<input type="checkbox"/> ATF
Perennial Stream / River	220 / 48	<input type="checkbox"/> ATF	80 / 4	<input type="checkbox"/> ATF
Lake / Pond	90 / 7	<input type="checkbox"/> ATF	200 / 10	<input type="checkbox"/> ATF
Bank - Intermittent stream	/	<input type="checkbox"/> ATF	/	<input type="checkbox"/> ATF
Bank - Perennial stream / River	0 / 0	<input type="checkbox"/> ATF	215 / 30	<input type="checkbox"/> ATF
Bank - Lake / Pond	/	<input type="checkbox"/> ATF	/	<input type="checkbox"/> ATF
Tidal water	/	<input type="checkbox"/> ATF	/	<input type="checkbox"/> ATF
Salt marsh		<input type="checkbox"/> ATF		<input type="checkbox"/> ATF
Sand dune		<input type="checkbox"/> ATF		<input type="checkbox"/> ATF
Prime wetland		<input type="checkbox"/> ATF		<input type="checkbox"/> ATF
Prime wetland buffer		<input type="checkbox"/> ATF		<input type="checkbox"/> ATF
Undeveloped Tidal Buffer Zone (TBZ)		<input type="checkbox"/> ATF		<input type="checkbox"/> ATF
Previously-developed upland in TBZ		<input type="checkbox"/> ATF		<input type="checkbox"/> ATF
Docking - Lake / Pond		<input type="checkbox"/> ATF		<input type="checkbox"/> ATF
Docking - River		<input type="checkbox"/> ATF		<input type="checkbox"/> ATF
Docking - Tidal Water		<input type="checkbox"/> ATF		<input type="checkbox"/> ATF
<b>TOTAL</b>	<b>310 / 55</b>		<b>635 / 44</b>	

**14. APPLICATION FEE:** See the Instructions & Required Attachments document for further instruction☐ Minimum Impact Fee: Flat fee of \$ 200☐ Minor or Major Impact Fee: Calculate using the below table belowPermanent and Temporary (non-docking) 945 sq. ft. X \$0.20 = \$ 189Temporary (seasonal) docking structure: sq. ft. X \$1.00 = \$Permanent docking structure: sq. ft. X \$2.00 = \$Projects proposing shoreline structures (including docks) add \$200 = \$Total = \$ 189The Application Fee is the above calculated Total or \$200, whichever is greater = \$ 200

shoreland@des.nh.gov or (603) 271-2147

NHDES Wetlands Bureau, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095

www.des.nh.gov



Project Location

Project #41254  
Dublin Road  
Squash Pipe Replacement  
Jaffrey, NH

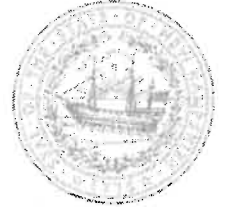


1:24,000



## WETLANDS PERMIT APPLICATION – ATTACHMENT A MINOR AND MAJOR - 20 QUESTIONS

Water Division/ Wetlands Bureau/ Land Resources Management  
Check the Status of your application: [www.des.nh.gov/onestop](http://www.des.nh.gov/onestop)



RSA/ Rule: RSA 482-A, Env-Wt 100-900

**Env-Wt 302.04 Requirements for Application Evaluation** - For any major or minor project, the applicant shall demonstrate by plan and example that the following factors have been considered in the project's design in assessing the impact of the proposed project to areas and environments under the department's jurisdiction. Respond with statements demonstrating:

1. The need for the proposed impact.

The existing squash pipe has deteriorated and needs replacement. If the condition continues to deteriorate the pipe could fail and cause unsafe conditions.

2. That the alternative proposed by the applicant is the one with the least impact to wetlands or surface waters on site.

The proposed work to remove the squash pipe and replacing it with a larger open bottom arch is the preferred alternative. The majority of the impacts are due to the reestablishment of a natural stream bottom through the structure in conjunction with slightly altering the stream bed slope in order to improve connectivity and natural flow direction. The inlet of the current pipe is lower than the outlet; the proposed plan is to re-establish a 1% slope from inlet to outlet. This is also the preferred alternative due to the scope and budget for the project.

This alternative is a more preferable alternative compared to an inkind replacement. It will provide environmental benefits, such as connectivity due to the re-establishment of natural stream bed and more natural slope direction.

3. The type and classification of the wetlands involved.

**R2UB3: Riverine, Lower Perennai, Unconsolidated Bottom, Mud**

**L1UB1: Lacustrine, Limnetic, Unconsolidated Bottom, Cobble-gravel**

4. The relationship of the proposed wetlands to be impacted relative to nearby wetlands and surface waters.

**No name stream flows into Thorndike Pond directly after the crossing.**

5. The rarity of the wetland, surface water, sand dunes, or tidal buffer zone area.

**The no name stream has not been identified as being a rare surface water by the state.**

6. The surface area of the wetlands that will be impacted.

**300 sq. ft. Riverine (220 sq. ft. permanent, 80 sq. ft. temporary)**

**290 sq. ft. Lacustrine (90 sq. ft. permanent, 200 sq. ft. temporary)**

**140 sq. ft. Palustrine (0 sq. ft. permanent, 140 sq. ft. temporary)**

**215 sq. ft. Bank (0 sq. ft. permanent, 215 sq. ft. temporary)**

7. The impact on plants, fish and wildlife including, but not limited to:
- a. Rare, special concern species;
  - b. State and federally listed threatened and endangered species;
  - c. Species at the extremities of their ranges;
  - d. Migratory fish and wildlife;
  - e. Exemplary natural communities identified by the DRED-NHB; and
  - f. Vernal pools.

The results of the NH Natural Heritage Bureau database review are enclosed. This review determined that no known rare species or exemplary natural communities are in the vicinity of the project area.

- a. No rare or special concern species were identified within the proposed project area.
- b. There were no State or Federally listed threatened or endangered species identified within the project limits by NHB. However, the USFWS IPaC results identified the Northern Long-Eared Bat (NLEB) on the Project's Official Species List as having potential to be present in the project area.

This project does not require tree clearing. The Department has determined that the project will not result in any prohibited actions as described in the 4(d) rule. The Department has provided ACOE a completed 4(d) consultation for their submittal to USF&WS.

- c. There are no species known to be at the extremities of their ranges located in the project area.
- d. Migratory fish have not been identified through the NHB or USFWS IPaC search as being in this area. Even though the project site will be dewatered during construction migratory fish are not using this water way and therefore will not be affected during construction.
- e. The Department has coordinated with DRED and the results of the NHB review revealed no records in this area.
- f. There were no vernal pools identified and/or delineated in the project area.

8. The impact of the proposed project on public commerce, navigation and recreation.

The road will be closed for approximately one week in order for crews to remove the existing squash pipe and replace it. A detour will be set up to guide traffic around this location for the duration of the closure. The road is a pretty low volume local road, however due to the proximity to the lake and summer time and summer camp traffic the work is anticipated to be done in late fall when most of the activity in the area will be slow. (See construction sequence)

9. The extent to which a project interferes with the aesthetic interests of the general public. For example, where an applicant proposes the construction of a retaining wall on the bank of a lake, the applicant shall be required to indicate the type of material to be used and the effect of the construction of the wall on the view of other users of the lake.

The project would have no aesthetic impacts.



10. The extent to which a project interferes with or obstructs public rights of passage or access. For example, where the applicant proposes to construct a dock in a narrow channel, the applicant shall be required to document the extent to which the dock would block or interfere with the passage through this area.

**The project will not interfere with or obstruct public rights of passage or access. The project will improve the safety of the public highway.**

11. The impact upon abutting owners pursuant to RSA 482-A:11, II. For example, if an applicant is proposing to rip-rap a stream, the applicant shall be required to document the effect of such work on upstream and downstream abutting properties.

**There should be no impact to abutters. The project is completely contained within State ROW.**

12. The benefit of a project to the health, safety, and well being of the general public.

**The project will improve highway safety because it is establishing a safer, longer lasting structure.**

13. The impact of a proposed project on quantity or quality of surface and ground water. For example, where an applicant proposes to fill wetlands the applicant shall be required to document the impact of the proposed fill on the amount of drainage entering the site versus the amount of drainage exiting the site and the difference in the quality of water entering and exiting the site.

**The water quality should be the same before and after the project. The project is not altering the way surface water acts currently.**

14. The potential of a proposed project to cause or increase flooding, erosion, or sedimentation.

**The project should not increase the potential for flooding, erosion, and sedimentation. The project is slightly affecting the hydraulics/fluvial geomorphology of the stream but not to a degree in which it will increase flooding, erosion, or sedimentation in the stream or pond. The new open bottom arch will be larger and have a slightly altered slope in order to improve connectivity and natural streambed characteristics which will allow water to flow through to the pond more naturally.**

**The pipe acts like an equilizer between the pond and the wetland. Due to the inverted slope, water appears to backwater in the marsh / upstream side of the structure. Slightly altering the slope in order to improve connectivity and natural flow direction will not change this equilizer function of the structure.**

15. The extent to which a project that is located in surface waters reflects or redirects current or wave energy which might cause damage or hazards.

**The surface water will not be reflected or redirected as a result of this project. No name brook nor Thorndike Pond have enough surface water for wave energy to be an issue. The current stone header at the inlet and outlets of the structure will help prevent any potential erosion.**

16. The cumulative impact that would result if all parties owning or abutting a portion of the affected wetland or wetland complex were also permitted alterations to the wetland proportional to the extent of their property rights. For example, an applicant who owns only a portion of a wetland shall document the applicant's percentage of ownership of that wetland and the percentage of that ownership that would be impacted.

N/A

17. The impact of the proposed project on the values and functions of the total wetland or wetland complex.

The project proposes minimal impacts and will not change the value and or use of the wetland.



18. The impact upon the value of the sites included in the latest published edition of the National Register of Natural Landmarks, or sites eligible for such publication.

**This project is located on the frindge of Mount Monadnock State Park. Mount Monadnock is a Registered Natural Natural Landmark. The project will not deter to this landmark, it will be an enhancement and safety improvement to the road abutting the state park.**

19. The impact upon the value of areas named in acts of congress or presidential proclamations as national rivers, national wilderness areas, national lakeshores, and such areas as may be established under federal, state, or municipal laws for similar and related purposes such as estuarine and marine sanctuaries.

**There are no areas named in acts of congress or presidential proclamations as national rivers, national wildness areas, or national lakeshores that will be impacted as a result of this project.**

20. The degree to which a project redirects water from one watershed to another.

**This project will not change any flow patterns.**

## Large, Sarah

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**From:** Sommer, Lori  
**Sent:** Monday, April 03, 2017 11:52 AM  
**To:** Large, Sarah  
**Cc:** Urban, Matt; Infascelli, Gino  
**Subject:** RE: NHDOT Jaffrey 41254 Mitigation

Hi Sarah,

I spoke with Gino and both of us are in agreement with the proposed design and that it does not require mitigation. Thanks and have a great day,

Lori

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**From:** Large, Sarah  
**Sent:** Monday, April 03, 2017 9:40 AM  
**To:** Sommer, Lori  
**Cc:** Urban, Matt; Infascelli, Gino  
**Subject:** RE: NHDOT Jaffrey 41254 Mitigation

Good morning Lori,

I hope you had a nice weekend. What a crazy April fools joke the storm was.

I wanted to circle back with you to see if you have had a chance to chat with Gino about the NHDOT District 4 project in Jaffrey, NH. District is proposing to replace the existing closed bottom squashed pipe (that conveys flow from a wetland to Thorndike Pond) to an open bottom arch. The Department is proposing to account for permanent channel impacts through the structure, but are hopeful that by upgrading the structure from a closed bottom to open bottom would allow the Department to count this work as self-mitigating efforts. District plans to simulate the stream channel through the structure.

We had discussed this project last week on Wednesday at the tail end of our mitigation discuss for Roxbury-Sullivan and it sounded like we were in agreement on this process, but we left it that you would like a chance to chat with Gino.

We appreciate your help.

Sarah Large

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**From:** Large, Sarah  
**Sent:** Tuesday, March 28, 2017 9:10 AM  
**To:** Sommer, Lori  
**Cc:** Urban, Matt  
**Subject:** RE: NHDOT Jaffrey 41254 Mitigation

Good morning Lori.

We are hopeful to submit this permit application next week and I wanted to touch base about if you have had a chance to review the project for mitigation.

Best wishes,

Sarah Large

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**From:** Large, Sarah  
**Sent:** Monday, March 20, 2017 10:57 AM  
**To:** Sommer, Lori  
**Cc:** Urban, Matt  
**Subject:** NHDOT Jaffrey 41254 Mitigation

Good morning Lori,

I am hopeful I could get your thoughts on mitigation for a District 4 project in Jaffrey (Jaffrey 41254). I have attached the Topo and plan for the project. District 4 is proposing to replace an existing 60"x42" squashed metal pipe (closed bottom) with a 5'x8' plastic open bottom arch that carries a no named stream from a wetland complex to Thorndike Pond. The slope of the current squashed pipe is inverted (slanted towards the wetland vs. the slope grading towards the pond). With the new open bottomed arch the slope will be re-aligned with the natural grade towards the pond and eliminate the perched outlet.

The Department is proposing permanent wetland impacts through the structure since the structure is going from closed bottom to open bottom. District is proposing to place small stone (sandy gravel) on the bed of the channel through the arch with the intent/hopes that the muck and silt of the stream bed and wetland complex will migrate towards the pond and settle between the gravel bottom they place within the structure. This is the Department's plan and attempt at simulating natural stream bed characteristics. (Through Matt's and my review of the project our thought process was that technically, since the outlet of the structure is a lake, the Stream Crossing Rules do not apply. But nevertheless, the Department is making a good faith effort to upsize, provide an open bottom, and simulate a natural bottom as best we can.)

We are hopeful that changing the structure from closed bottom to open bottom and placing small stone similar to the sandy gravel of the lake bed through the structure that this would count towards self-mitigating efforts.

We appreciate your help and review of this project. If you have any questions please don't hesitate to ask.

Best wishes,

Sarah Large  
Wetlands Program Aide  
NH Department of Transportation  
Bureau of Environment





## New Hampshire Natural Heritage Bureau

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**To:** Kevin Belanger  
19 Base Hill Rd  
Swanzey, NH 03446

**Date:** 1/6/2017

**From:** NH Natural Heritage Bureau

**Re:** Review by NH Natural Heritage Bureau of request dated 1/6/2017  
NHB File ID: NHB17-0102

**Applicant:** Kevin Belanger

**Location:** Tax Map(s)/Lot(s):  
Jaffrey

**Project Description:** Replace an existing squash pipe with a new plastic arch.

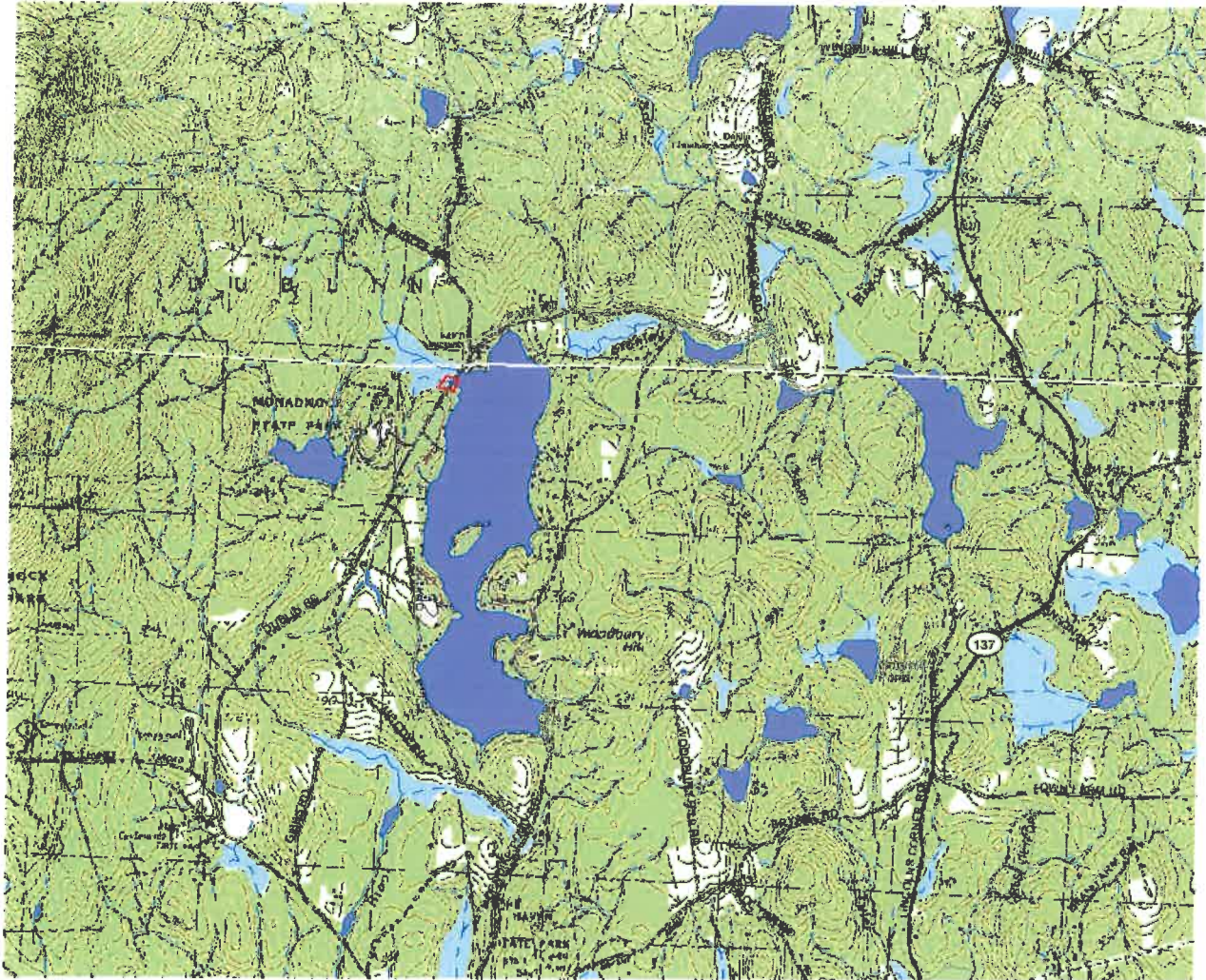
The NH Natural Heritage database has been checked for records of rare species and exemplary natural communities near the area mapped below. The species considered include those listed as Threatened or Endangered by either the state of New Hampshire or the federal government. We currently have no recorded occurrences for sensitive species near this project area.

A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

This report is valid through 1/5/2018.



**MAP OF PROJECT BOUNDARIES FOR NHB FILE ID: NHB17-0102**





## United States Department of the Interior



FISH AND WILDLIFE SERVICE  
New England Ecological Services Field Office  
70 COMMERCIAL STREET, SUITE 300  
CONCORD, NH 03301  
PHONE: (603)223-2541 FAX: (603)223-0104  
URL: [www.fws.gov/newengland](http://www.fws.gov/newengland)

Consultation Code: 05E1NE00-2017-SLI-0625

January 06, 2017

Event Code: 05E1NE00-2017-E-01009

Project Name: Jaffrey 41254

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

### To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.



A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan ([http://www.fws.gov/windenergy/eagle\\_guidance.html](http://www.fws.gov/windenergy/eagle_guidance.html)). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment



United States Department of Interior  
Fish and Wildlife Service

Project name: Jaffrey 41254

## Official Species List

**Provided by:**

New England Ecological Services Field Office

70 COMMERCIAL STREET, SUITE 300

CONCORD, NH 03301

(603) 223-2541

<http://www.fws.gov/newengland>

**Consultation Code:** 05E1NE00-2017-SLI-0625

**Event Code:** 05E1NE00-2017-E-01009

**Project Type:** TRANSPORTATION

**Project Name:** Jaffrey 41254

**Project Description:** Replacing a squashed metal pipe with a 5'8' plastic open bottom arch

**Please Note:** The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.



United States Department of Interior  
Fish and Wildlife Service

Project name: Jaffrey 41254

### Project Location Map:



**Project Coordinates:** MULTIPOLYGON (((-72.05714821815491 42.86563991325591, -72.05737352371216 42.86577359619893, -72.05751299858093 42.86560452654607, -72.05731987953186 42.8655180256144, -72.05714821815491 42.86563991325591)))

**Project Counties:** Cheshire, NH





United States Department of Interior  
Fish and Wildlife Service

Project name: Jaffrey 41254

## Endangered Species Act Species List

There are a total of 1 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Mammals	Status	Has Critical Habitat	Condition(s)
Northern long-eared Bat ( <i>Myotis septentrionalis</i> ) Population: Wherever found	Threatened		



United States Department of Interior  
Fish and Wildlife Service

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## **Critical habitats that lie within your project area**

There are no critical habitats within your project area.

## Northern Long-Eared Bat 4(d) Rule Streamlined Consultation Form

Federal agencies should use this form for the optional streamlined consultation framework for the northern long-eared bat (NLEB). This framework allows federal agencies to rely upon the U.S. Fish and Wildlife Service's (USFWS) January 5, 2016, intra-Service Programmatic Biological Opinion (BO) on the final 4(d) rule for the NLEB for section 7(a)(2) compliance by: (1) notifying the USFWS that an action agency will use the streamlined framework; (2) describing the project with sufficient detail to support the required determination; and (3) enabling the USFWS to track effects and determine if reinitiation of consultation is required per 50 CFR 402.16.

This form is not necessary if an agency determines that a proposed action will have no effect to the NLEB or if the USFWS has concurred in writing with an agency's determination that a proposed action may affect, but is not likely to adversely affect the NLEB (i.e., the standard informal consultation process). Actions that may cause prohibited incidental take require separate formal consultation. Providing this information does not address section 7(a)(2) compliance for any other listed species.

IPaC Official Species List Consultation Code: 05E1NE00-2017-SLI-0625

### Information to Determine 4(d) Rule Compliance:

	YES	NO
1. Does the project occur wholly outside of the WNS Zone <sup>1</sup> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Have you contacted the appropriate agency <sup>2</sup> to determine if your project is near known hibernacula or maternity roost trees?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Could the project disturb hibernating NLEBs in a known hibernaculum?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Could the project alter the entrance or interior environment of a known hibernaculum?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Does the project remove any trees within 0.25 miles of a known hibernaculum at any time of year?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Would the project cut or destroy known occupied maternity roost trees, or any other trees within a 150-foot radius from the maternity roost tree from June 1 through July 31.	<input type="checkbox"/>	<input checked="" type="checkbox"/>

You are eligible to use this form if you have answered yes to question #1 or yes to question #2 and no to questions 3, 4, 5 and 6. The remainder of the form will be used by the USFWS to track our assumptions in the BO.

**Agency and Applicant<sup>3</sup>** (Name, Email, Phone No.): Kevin Belanger NH DOT District 4

Kevin.Belanger@dot.nh.gov  
**Project Name:** Jaffrey #1254 603-352-2302

**Project Location** (include coordinates if known): 72° 3' 28.664" W 42° 51' 54.681" N

### Basic Project Description (provide narrative below or attach additional information):

Replace existing 60"x42" Squashed metal pipe with a 5'x8' plastic arch due to deterioration. The slope of the current structure is inverted; the slope of the new arch will enhance stream connectivity as it will restore a natural gradient to the crossing and eliminate the perched outlet.

<sup>1</sup> <http://www.fws.gov/midwest/endangered/mammals/nleb/pdf/WNSZone.pdf>

<sup>2</sup> See <http://www.fws.gov/midwest/endangered/mammals/nleb/nhisites.html>

<sup>3</sup> If applicable - only needed for federal actions with applicants (e.g., for a permit, etc.) who are party to the consultation.

General Project Information	YES	NO
Does the project occur within 0.25 miles of a known hibernaculum?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the project occur within 150 feet of a known maternity roost tree?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the project include forest conversion <sup>4</sup> ? (if yes, report acreage below)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Estimated total acres of forest conversion		N/A
If known, estimated acres <sup>5</sup> of forest conversion from April 1 to October 31		N/A
If known, estimated acres of forest conversion from June 1 to July 31 <sup>6</sup>		N/A
Does the project include timber harvest? (if yes, report acreage below)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Estimated total acres of timber harvest		N/A
If known, estimated acres of timber harvest from April 1 to October 31		N/A
If known, estimated acres of timber harvest from June 1 to July 31		N/A
Does the project include prescribed fire? (if yes, report acreage below)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Estimated total acres of prescribed fire		N/A
If known, estimated acres of prescribed fire from April 1 to October 31		N/A
If known, estimated acres of prescribed fire from June 1 to July 31		N/A
Does the project install new wind turbines? (if yes, report capacity in MW below)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Estimated wind capacity (MW)		N/A

Agency Determination:

By signing this form, the action agency determines that this project may affect the NLEB, but that any resulting incidental take of the NLEB is not prohibited by the final 4(d) rule.

If the USFWS does not respond within 30 days from submittal of this form, the action agency may presume that its determination is informed by the best available information and that its project responsibilities under 7(a)(2) with respect to the NLEB are fulfilled through the USFWS January 5, 2016, Programmatic BO. The action agency will update this determination annually for multi-year activities.

The action agency understands that the USFWS presumes that all activities are implemented as described herein. The action agency will promptly report any departures from the described activities to the appropriate USFWS Field Office. The action agency will provide the appropriate USFWS Field Office with the results of any surveys conducted for the NLEB. Involved parties will promptly notify the appropriate USFWS Field Office upon finding a dead, injured, or sick NLEB.

Signature: Sarah E. Lange

Date Submitted: 4/6/17

<sup>4</sup> Any activity that temporarily or permanently removes suitable forested habitat, including, but not limited to, tree removal from development, energy production and transmission, mining, agriculture, etc. (see page 48 of the BO).

<sup>5</sup> If the project removes less than 10 trees and the acreage is unknown, report the acreage as less than 0.1 acre.

<sup>6</sup> If the activity includes tree clearing in June and July, also include those acreage in April to October.



**Wetland Application – NHDOT Cultural Resources Review**

For the purpose of compliance with regulations of the National Historic Preservation Act, the Advisory Council on Historic Preservation's *Procedures for the Protection of Historic Properties* (36 CFR 800), the US Army Corps of Engineers' *Appendix C*, and/or state regulation RSA 227-C:9, *Directive for Cooperation in the Protection of Historic Resources*, the NHDOT Cultural Resources Program has reviewed the enclosed Standard Dredge and Fill Application for potential impacts to historic properties.

**Proposed Project:** removal and replacement of existing 60" X 42" squashed metal pipe and headwalls with a 5' X 8' (72" X 96") open bottom plastic arch; culvert is situated on Dublin Road west of Thorndike Pond

**Above Ground Review**

Known/approximate age of structure: Presume post-1945

☒ No Potential to Cause Effect/No Concerns

As post 1945, this project would fall under the program comment.

☐ Concerns:

**Below Ground Review**

Recorded Archaeological site: ☐ Yes ☒ No

Nearest Recorded Archaeological Site Name & Number: 27-CH-0011

☒ Pre-Contact ☐ Post-Contact (no name)

Distance from Project Area:

586 ft northeast of project area

☒ No Potential to Cause Effect/No Concerns

Although a larger pipe will be utilized, replacement and staging will be contained within existing disturbed areas or on road bed as project will require road closure. Disturbances derive from road and corrugated metal culvert construction.

☐ Concerns:

Reviewed by:

*Shirley Charles*

2/8/2017

NHDOT Cultural Resources Staff

Date:

**U.S. Army Corps of Engineers**  
**New Hampshire Programmatic General Permit (PGP)**  
**Appendix B - Corps Secondary Impacts Checklist**  
**(for inland wetland/waterway fill projects in New Hampshire)**

1. Attach any explanations to this checklist. Lack of information could delay a Corps permit determination.
2. All references to "work" include all work associated with the project construction and operation. Work includes filling, clearing, flooding, draining, excavation, dozing, stumping, etc.
3. See PGP, GC 5 regarding single and complete projects.
4. Contact the Corps at (978) 318-8832 with any questions.

<b>1. Impaired Waters</b>	<b>Yes</b>	<b>No</b>
1.1 Will any work occur within 1 mile upstream in the watershed of an impaired water? See <a href="http://des.nh.gov/organization/divisions/water/wmb/section401/impaired_waters.htm">http://des.nh.gov/organization/divisions/water/wmb/section401/impaired_waters.htm</a> to determine if there is an impaired water in the vicinity of your work area.*		x
<b>2. Wetlands</b>	<b>Yes</b>	<b>No</b>
2.1 Are there are streams, brooks, rivers, ponds, or lakes within 200 feet of any proposed work?	x	
2.2 Are there proposed impacts to SAS, shellfish beds, special wetlands and vernal pools (see PGP, GC 26 and Appendix A)? Applicants may obtain information from the NH Department of Resources and Economic Development Natural Heritage Bureau (NHB) website, <a href="http://www.nhnaturalheritage.org">www.nhnaturalheritage.org</a> , specifically the book <u>Natural Community Systems of New Hampshire</u> .		x
2.3 If wetland crossings are proposed, are they adequately designed to maintain hydrology, sediment transport & wildlife passage?	x	
2.4 Would the project remove part or all of a riparian buffer? (Riparian buffers are lands adjacent to streams where vegetation is strongly influenced by the presence of water. They are often thin lines of vegetation containing native grasses, flowers, shrubs and/or trees that line the stream banks. They are also called vegetated buffer zones.)	x	
2.5 The overall project site is more than 40 acres.		x
2.6 What is the size of the existing impervious surface area?	N/A	
2.7 What is the size of the proposed impervious surface area?	N/A	
2.8 What is the % of the impervious area (new and existing) to the overall project site?	N/A	
<b>3. Wildlife</b>	<b>Yes</b>	<b>No</b>
3.1 Has the NHB determined that there are known occurrences of rare species, exemplary natural communities, Federal and State threatened and endangered species and habitat, in the vicinity of the proposed project? (All projects require a NHB determination.)		x
3.2 Would work occur in any area identified as either "Highest Ranked Habitat in N.H." or "Highest Ranked Habitat in Ecological Region"? (These areas are colored magenta and green, respectively, on NH Fish and Game's map, "2010 Highest Ranked Wildlife Habitat by Ecological Condition.") Map information can be found at: <ul style="list-style-type: none"> <li>• PDF: <a href="http://www.wildlife.state.nh.us/Wildlife/Wildlife_Plan/highest_ranking_habitat.htm">www.wildlife.state.nh.us/Wildlife/Wildlife_Plan/highest_ranking_habitat.htm</a>.</li> <li>• Data Mapper: <a href="http://www.granit.unh.edu">www.granit.unh.edu</a>.</li> <li>• GIS: <a href="http://www.granit.unh.edu/data/downloadfreedata/category/databycategory.html">www.granit.unh.edu/data/downloadfreedata/category/databycategory.html</a>.</li> </ul>		x
3.3 Would the project impact more than 20 acres of an undeveloped land block (upland, wetland/waterway) on the entire project site and/or on an adjoining property(s)?		x
3.4 Does the project propose more than a 10-lot residential subdivision, or a commercial or industrial development?		x
3.5 Are stream crossings designed in accordance with the PGP, GC 21?		N/A

<b>4. Flooding/Floodplain Values</b>	<b>Yes</b>	<b>No</b>
4.1 Is the proposed project within the 100-year floodplain of an adjacent river or stream?		x
4.2 If 4.1 is yes, will compensatory flood storage be provided if the project results in a loss of flood storage?		N/A
<b>5. Historic/Archaeological Resources</b>		
If a minor or major impact project, has a copy of the Request for Project Review (RPR) Form ( <a href="http://www.nh.gov/nhdhr/review">www.nh.gov/nhdhr/review</a> ) been sent to the NH Division of Historical Resources as required on Page 5 of the PGP?	x	

\*Although this checklist utilizes state information, its submittal to the Corps is a Federal requirement.

**Dublin Pipe Replacement**

**Project # 41254**

**Note: Lake had been lowered by association to make dam repairs.**



**Looking North on Dublin Road.**



**Looking Downstream.**



Dublin Pipe Replacement

Project # 41254

Note: Lake had been lowered by association to make dam repairs.



Looking Upstream.



Pipe Inlet submerged as pipe is set with inlet lower than outlet.

Dublin Pipe Replacement

Project # 41254

Note: Lake had been lowered by association to make dam repairs.



Inside Pipe.



Pipe Outlet.

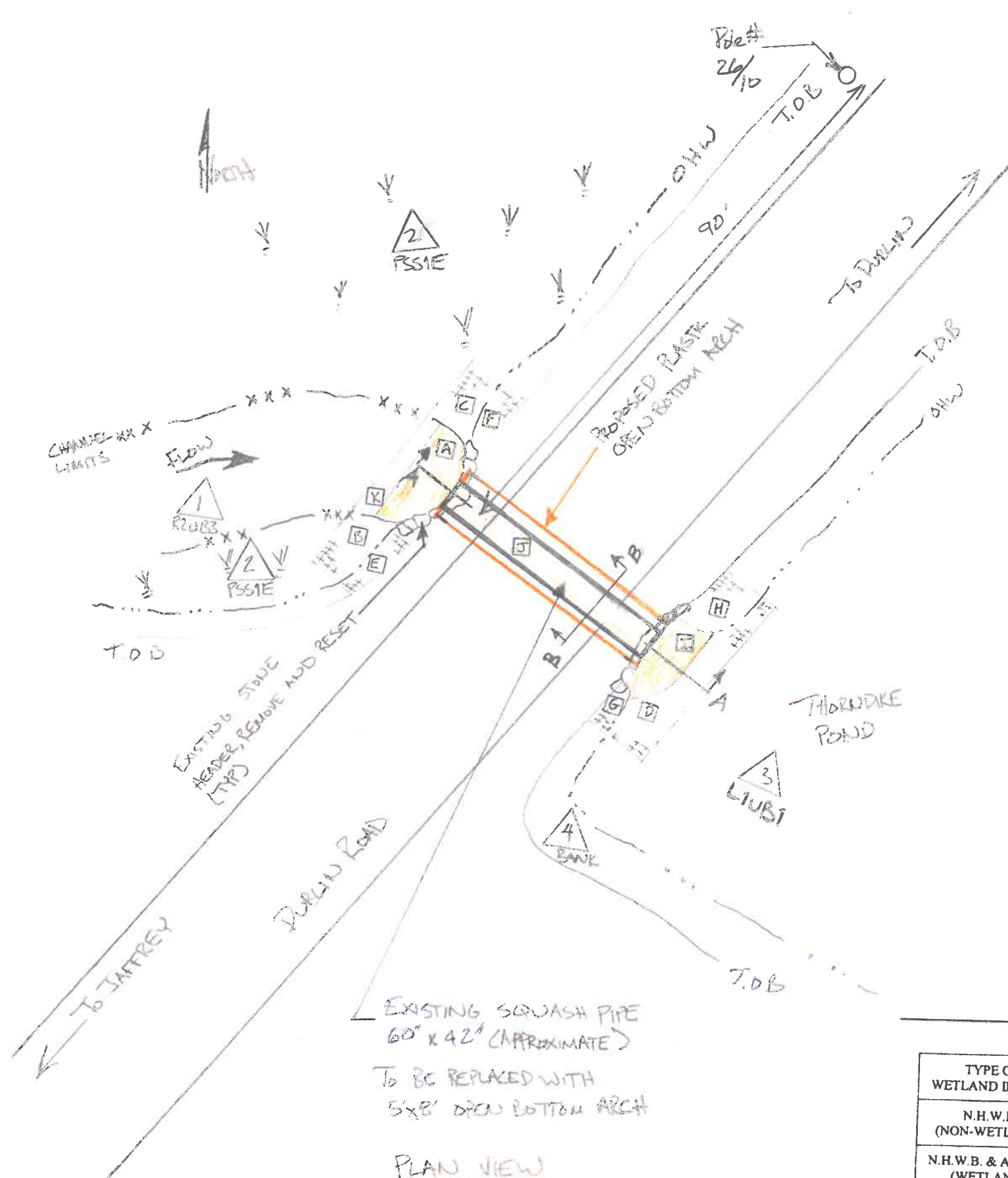


**New Hampshire Department of Transportation**  
**Bureau of Highway Maintenance, Project # 41254**  
**Dublin, NH**  
**Squash Pipe Replacement**

## **Construction Sequence**

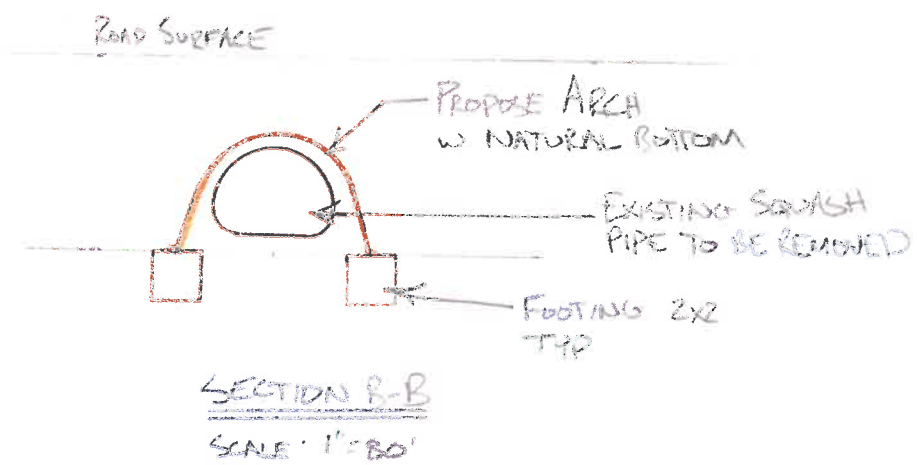
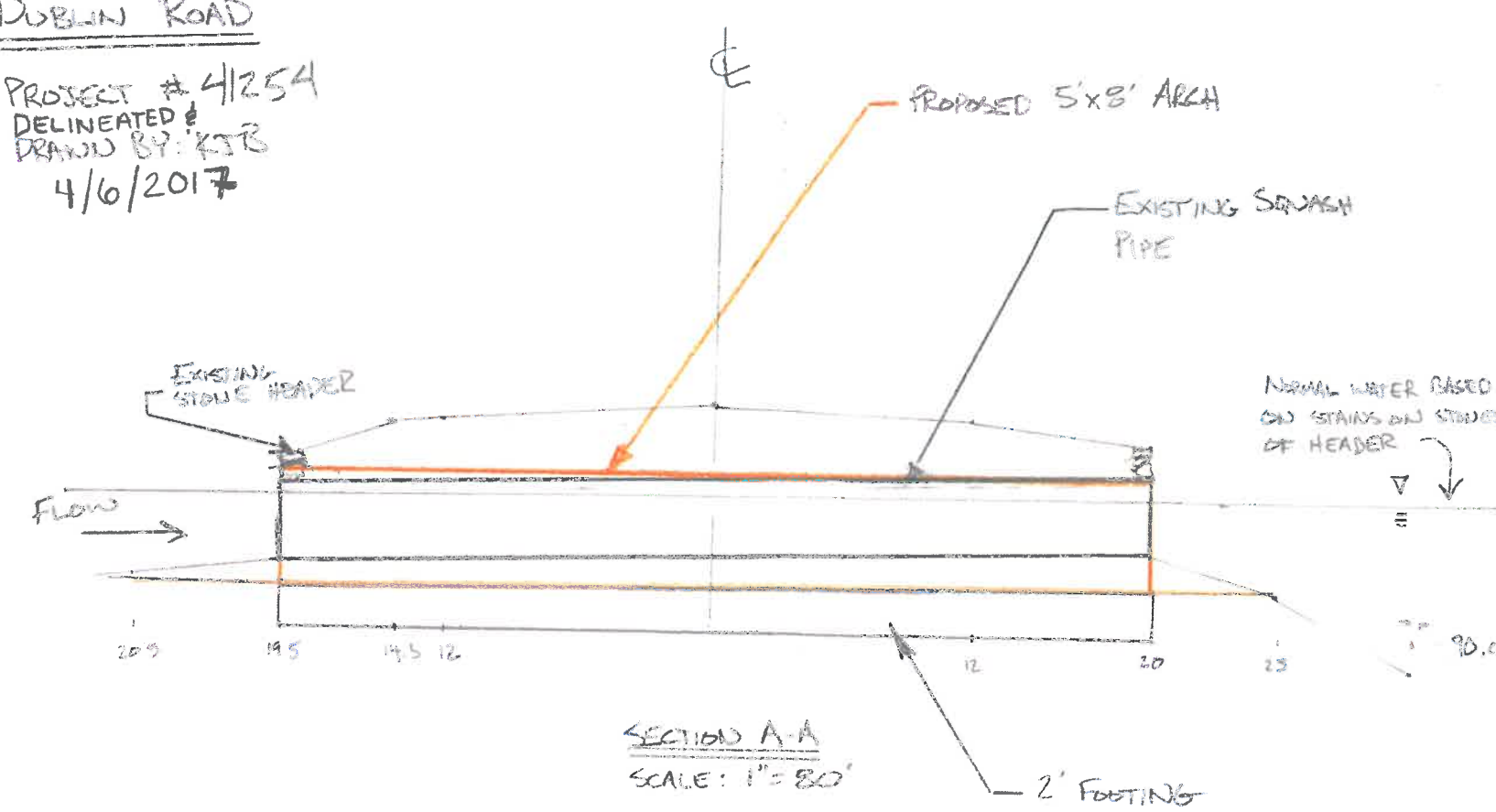
1. Install erosion control measures upstream and downstream (silt fence, hay bales, sand bags, etc.). If water flow exists, dam the flow and pump around the work area as needed.
2. Close road and remove existing squash pipe and headwalls.
3. Prepare sub-grade and install new footings and plastic arch.
4. Backfill and make safe for traffic. Open road to traffic.
5. Prepare sub grade for paving utilizing flaggers and alternating traffic, pave binder.
6. Pave top.
7. Maintain temporary erosion control measures until area is stabilized.

Note:



EXISTING SQUASH PIPE  
60" x 42" (APPROXIMATE)  
To be REPLACED WITH  
5'x8' OPEN BOTTOM ARCH  
  
PLAN VIEW  
 SCALE: 1" = 20'

DUBLIN ROAD  
 PROJECT # 41254  
 DELINEATED &  
 DRAWN BY: KTB  
 4/6/2017



**LEGEND**

TYPE OF WETLAND IMPACT	PERMANENT IMPACT		WETLAND DESIGNATION NUMBER
N.H.W.B. (NON-WETLAND)		X	WETLAND IMPACT LOCATION
N.H.W.B. & A.C.O.E. (WETLAND)		M	WETLAND MITIGATION AREA
N.H.W.B. - NEW HAMPSHIRE WETLANDS BOARD A.C.O.E. - ARMY CORPS OF ENGINEERS		++++	TEMPORARY IMPACTS
ORDINARY HIGH WATER (OHW)			MITIGATION
TOP OF BANK (TOB)			

Dublin Road			AREA IN SQUARE FEET			LINEAR FT	
WETLAND #	USFWS WETLAND CLASSIFICATION	LOCATION	N.H.W.B NON-WTLND	N.H.W.B & A.C.O.E WETLAND	TEMPORARY IMPACTS	N.H.W.B NON-WTLND	N.H.W.B & A.C.O.E WETLAND
1	R2UB3	A		120			8
2	PSS1E	B			70		
2	PSS1E	C			70		
3	L1UB1	D			200		
4	BANK	E			60	8	
4	BANK	F			50	8	
4	BANK	G			25	7	
4	BANK	H			80	7	
3	L1UB1	I		90			7
1	R2UB3	J		100			40
1	R2UB3	K			80		
			0	310	635	30	55
			PERMANENT IMPACTS		310	SQ-FT	30
			TEMPORARY IMPACTS		635	SQ-FT	55
						LINEAR FT	LINEAR FT